

ABSTRACT OF THE DISCLOSURE

In a flip-chip type semiconductor device, a pad electrode and a passivation film are formed on a semiconductor substrate. An insulating resin layer is formed on the passivation film, and an opening is formed above the electrode. A pad electrode adhesive metal film is formed on the substrate like a re-wiring pattern, and a plating feed layer metal film and a Cu plating layer are sequentially formed on the metal film to form a wiring layer. A metal post electrode is formed on the wiring layer. A solder bump is formed on the post electrodes, a support plate in which holes each having a diameter larger than the diameter of the solder bump are formed at positions adjusted to the solder bumps is arranged, and an insulating resin layer is formed between the support plate and the semiconductor substrate. Therefore, a stress acting on the solder bump is moderated.